



MICROSOFT TRAINING

Azure Kubernetes Service Advanced Course

Master advanced Azure Kubernetes Service (AKS) deployment and management. Scale and secure your containerized applications on Azure.

DURATION

2 hours

LEVEL

Intermediate

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

Computer Pride | 1st Floor, ICEA Building, Kenyatta Avenue, Nairobi | www.computer-pride.co.ke

COURSE OVERVIEW

The Azure Kubernetes Service Advanced Course is meticulously designed for IT professionals, DevOps engineers, and cloud architects who have a foundational understanding of Azure and Kubernetes, and are looking to deepen their expertise in managing and optimizing containerized applications on Microsoft Azure. This intensive course dives into the sophisticated aspects of AKS, focusing on advanced networking configurations, robust security practices, efficient scaling strategies, and comprehensive observability for production-grade deployments. Participants will explore critical topics such as fine-tuning network policies, integrating with Azure security services, implementing advanced scaling mechanisms, and leveraging Azure Monitor for in-depth insights and troubleshooting.

By completing this course, you will not only enhance your technical proficiency but also significantly boost your capability to design, deploy, and maintain highly available, secure, and scalable cloud-native applications on AKS. The skills acquired are directly applicable to real-world scenarios, enabling you to optimize resource utilization, ensure compliance, and minimize operational overhead within your organization's Azure infrastructure. This advanced training serves as a catalyst for career progression, positioning you as an expert in modern container orchestration and cloud-native development paradigms.

Duration	2 hours
Level	Intermediate
Vendor	Microsoft

COURSE CURRICULUM

01 Module 1: Advanced AKS Networking and Security

- Deep Dive into Azure CNI and Kubenet Networking Options
- Implementing Network Policies for Container Isolation
- Securing AKS with Private Clusters and Private Link
- Integrating Azure Active Directory for Cluster Access Control
- Container Image Security Best Practices with Azure Container Registry

02 Module 2: Scaling, High Availability, and Performance Optimization

- Advanced Pod and Cluster Autoscaling Techniques (HPA, VPA, CA)
- Leveraging Multiple Node Pools for Heterogeneous Workloads
- Integrating Azure Container Instances (ACI) with AKS Virtual Nodes
- Implementing Disaster Recovery Strategies for AKS Workloads
- Optimizing Resource Requests and Limits for Performance

03 Module 3: Monitoring, Logging, and Troubleshooting Complex AKS Environments

- Configuring Azure Monitor for Containers for Deep Observability
- Integrating Custom Monitoring Solutions (Prometheus & Grafana)
- Centralized Logging with Azure Log Analytics and Azure Diagnostics
- Advanced Troubleshooting Methodologies for AKS Clusters
- Implementing Health Checks and Readiness Probes for Application Resilience

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Senior Cloud Solutions Architect (Azure/Kubernetes Focus)**
- > **Principal DevOps Engineer (Containerization & Azure)**
- > **Kubernetes Security and Reliability Specialist**

FREQUENTLY ASKED QUESTIONS

Q: What foundational knowledge or experience is required before enrolling in this Azure Kubernetes Service Advanced Course?

This course assumes participants have a solid understanding of basic Kubernetes concepts, including pods, deployments, services, and namespaces. Familiarity with deploying and managing a basic AKS cluster, Docker containerization, and fundamental Azure services (like virtual networks, resource groups) is also essential to fully benefit from the advanced topics covered.

Q: How will this advanced course equip me to handle complex, production-grade AKS environments and troubleshooting challenges?

Upon completion, you will possess the advanced skills to configure secure and highly available AKS clusters using private networking and robust access controls. You'll master sophisticated scaling techniques to ensure application performance under varying loads, implement comprehensive monitoring and logging solutions for proactive issue detection, and apply structured troubleshooting methodologies to quickly resolve complex operational problems in production AKS environments.

Q: Beyond administration, how does mastering advanced AKS features benefit my career growth in cloud architecture or DevOps roles?

Mastering advanced AKS features is crucial for career growth as it positions you as a strategic asset capable of designing, optimizing, and securing cloud-native solutions. For cloud architects, it means building more resilient and cost-effective infrastructures. For DevOps engineers, it translates to implementing sophisticated CI/CD pipelines, automating complex deployments, and driving best practices in a highly scalable and reliable containerized ecosystem, making you indispensable in modern cloud-centric organizations.

ABOUT COMPUTER PRIDE



East Africa's Premier IT Training Center

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

Years of Excellence

10,000+

Professionals Trained

50+

Vendor Certifications

READY TO ENROL?

Take the next step in your technology career.

Location

1st Flr, ICEA Building
Kenyatta Ave, Nairobi

Email

info@computer-pride.co.ke

Phone

+254 705 900 900

www.computer-pride.co.ke